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DEC 12 2007

CLAIM AMENDMENTS

Claim 1. (canceled)

2. (currently amended) ~~The method according to claim 1,~~ A method for encoding an audio signal that comprises:

receiving spectral components that represent spectral content of the audio signal;

applying a perceptual model to the spectral components to obtain a first masking curve that represents perceptual masking effects of the audio signal;

deriving an estimated value of a coding parameter that specifies an offset between a second masking curve and the first masking curve, wherein the estimated value of the coding parameter is derived in response to a number of bits that are available for encoding the audio signal, and wherein derivation the deriving of the estimated value of the coding parameter comprises:

selecting an initial value for the coding parameter;

determining a first number of bits in response to the initial value of the coding parameter to use in quantizing the spectral components;

determining a second number of bits from a difference between the first number of bits and a third number of bits, wherein the third number of bits corresponds to the number of bits that are available for encoding the audio signal; and

deriving the estimated value of the coding parameter in response to the initial value of the coding parameter and the second number of bits; bits;

obtaining an optimum value of the coding parameter by modifying the estimated value of the coding parameter in an iterative process that searches for the optimum value of the coding parameter according to the perceptual model;

generating encoded spectral components by quantizing spectral components according to the second masking curve, wherein resolution of the quantizing is responsive to the first masking curve and the coding parameter such that the optimum value of the coding parameter minimizes perceptiblity of quantizing noise according to the perceptual model; and

assembling a representation of the encoded spectral components into an output signal.

3. (currently amended) ~~The method according to claim 1,~~ A method for encoding an audio signal that comprises:

receiving spectral components that represent spectral content of the audio signal, wherein the spectral components are arranged in a plurality of blocks, the plurality of blocks being arranged in a frame of ~~blocks,~~ blocks;

applying a perceptual model to the spectral components to obtain a first masking curve that represents perceptual masking effects of the audio signal;

deriving an estimated value of a coding parameter that specifies an offset between a second masking curve and the first masking curve, wherein the estimated value of the coding parameter is derived in response to a number of bits that are available for encoding the audio signal;

obtaining an optimum value of the coding parameter by modifying the estimated value of the coding parameter in an iterative process that searches for the optimum value of the coding parameter according to the perceptual model;

generating encoded spectral components by quantizing spectral components according to the second masking curve, wherein resolution of the quantizing is responsive to the first masking curve and the coding parameter such that the optimum value of the coding parameter minimizes perceptiblity of quantizing noise according to the perceptual model, and wherein encoded spectral components are generated by quantizing at least some but not all blocks of spectral components in the frame according to the estimated value of the coding ~~parameter.~~ parameter; and

assembling a representation of the encoded spectral components into an output signal.

Claims 4 to 7. (canceled)

8. (currently amended) ~~The medium according to claim 7,~~ A medium conveying a program of instructions that is executable by a device to perform a method for encoding an audio signal that comprises:

receiving spectral components that represent spectral content of the audio signal;

applying a perceptual model to the spectral components to obtain a first masking curve that represents perceptual masking effects of the audio signal;

deriving an estimated value of a coding parameter that specifies an offset between a second masking curve and the first masking curve, wherein the estimated value of the coding parameter is derived in response to a number of bits that are available for encoding the audio signal, and wherein derivation of the estimated value of the coding parameter comprises:

selecting an initial value for the coding parameter;

determining a first number of bits in response to the initial value of the coding parameter to use in quantizing the spectral components;

determining a second number of bits from a difference between the first number of bits and a third number of bits, wherein the third number of bits corresponds to the number of bits that are available for encoding the audio signal; and

deriving the estimated value of the coding parameter in response to the initial value of the coding parameter and the second number of ~~bits.~~ bits;

obtaining an optimum value of the coding parameter by modifying the estimated value of the coding parameter in an iterative process that searches for the optimum value of the coding parameter according to the perceptual model;

generating encoded spectral components by quantizing spectral components according to the second masking curve, wherein resolution of the quantizing is responsive to the first masking curve and the coding parameter such that the optimum value of the coding parameter minimizes perceptiblity of quantizing noise according to the perceptual model; and

assembling a representation of the encoded spectral components into an output signal.

9. (currently amended) ~~The medium according to claim 7,~~ A medium conveying a program of instructions that is executable by a device to perform a method for encoding an audio signal that comprises:

receiving spectral components that represent spectral content of the audio signal, wherein the spectral components are arranged in a plurality of blocks, the plurality of blocks being arranged in a frame of ~~bleeks,~~ blocks;

applying a perceptual model to the spectral components to obtain a first masking curve that represents perceptual masking effects of the audio signal;

deriving an estimated value of a coding parameter that specifies an offset between a second masking curve and the first masking curve, wherein the estimated value of the coding parameter is derived in response to a number of bits that are available for encoding the audio signal;

obtaining an optimum value of the coding parameter by modifying the estimated value of the coding parameter in an iterative process that searches for the optimum value of the coding parameter according to the perceptual model;

generating encoded spectral components by quantizing spectral components according to the second masking curve, wherein resolution of the quantizing is responsive to the first masking curve and the coding parameter such that the optimum value of the coding parameter minimizes perceptiblity of quantizing noise according to the perceptual model, and wherein encoded spectral components are generated by quantizing at least some but not all blocks of spectral components in the frame according to the estimated value of the coding ~~parameter.~~ parameter; and

assembling a representation of the encoded spectral components into an output signal.

Claims 10 to 13. (canceled)

14. (currently amended) ~~The apparatus according to claim 13,~~ An apparatus for encoding an audio signal that comprises:

(a) an input terminal;

(b) an output terminal; and

(c) signal processing circuitry coupled to the input terminal and the output terminal, wherein the signal processing circuitry is adapted to:

receive a signal from the input terminal and obtain therefrom spectral components that represent spectral content of the audio signal;

apply a perceptual model to the spectral components to obtain a first masking curve that represents perceptual masking effects of the audio signal;

derive an estimated value of a coding parameter that specifies an offset between a second masking curve and the first masking curve, wherein the estimated value of the coding parameter is derived in response to a number of bits that are available for encoding the audio signal,wherein derivation of the estimated value of the coding parameter comprises:

selecting an initial value for the coding parameter;

determining a first number of bits in response to the initial value of the coding parameter to use in quantizing the spectral components;

determining a second number of bits from a difference between the first number of bits and a third number of bits, wherein the third number of bits corresponds to the number of bits that are available for encoding the audio signal; and

deriving the estimated value of the coding parameter in response to the initial value of the coding parameter and the second number of ~~bits.~~ bits;

obtain an optimum value of the coding parameter by modifying the estimated value of the coding parameter in an iterative process that searches for the optimum value of the coding parameter according to the perceptual model;

generate encoded spectral components by quantizing spectral components according to the second masking curve, wherein resolution of the quantizing is responsive to the first masking curve and the coding parameter such that the optimum value of the coding parameter minimizes perceptiblity of quantizing noise according to the perceptual model; and

assemble a representation of the encoded spectral components into an output signal that is sent to the output terminal.

15. (currently amended) ~~The apparatus according to claim 13,~~ An apparatus for encoding an audio signal that comprises:

(a) an input terminal;

(b) an output terminal; and

(c) signal processing circuitry coupled to the input terminal and the output terminal, wherein the signal processing circuitry is adapted to:

receive a signal from the input terminal and obtain thereform spectral components that represent spectral content of the audio signal, wherein the spectral components are arranged in a plurality of blocks, the plurality of blocks being arranged in a frame of ~~blocks,~~ blocks;

apply a perceptual model to the spectral components to obtain a first masking curve that represents perceptual masking effects of the audio signal;

derive an estimated value of a coding parameter that specifies an offset between a second masking curve and the first masking curve, wherein the estimated value of the coding parameter is derived in response to a number of bits that are available for encoding the audio signal;

obtain an optimum value of the coding parameter by modifying the estimated value of the coding parameter in an iterative process that searches for the optimum value of the coding parameter according to the perceptual model;

generate encoded spectral components by quantizing spectral components according to the second masking curve, wherein resolution of the quantizing is responsive to the first masking curve and the coding parameter such that the optimum value of the coding parameter minimizes perceptiblity of quantizing noise according to the perceptual model, and wherein encoded spectral components are generated by quantizing at least some but not all blocks of spectral components in the frame according to the estimated value of the coding ~~parameter.~~ parameter; and

assemble a representation of the encoded spectral components into an output signal that is sent to the output terminal.

Claims 16 to 18. (canceled)